#0000067804

Rocky Mountain Remediation Services, L.L.C.
protecting the environment

INTEROFFICE MEMORANDUM

DATE: November 13, 1997

TO: Jim Langsted, Program Compliance, T893A, X2542

FROM: Wayne Sproles, Environmental Restoration Projects, T893B, X5790

SUBJECT: GAMMA SPECTROSCOPY REQUIREMENTS TO SUPPORT THE TRENCH 1 SOURCE REMOVAL PROJECT - WRS -021-97

The Trench 1 Source Removal Project will rely on the use of gamma spectroscopy to provide timely quantitative analysis of samples to support the preparation of Property Release Evaluations for the shipment of samples to an offsite laboratory; to ensure compliance with the offsite laboratory and treatment subcontractor's radioactive material licenses (Attachment 1 and 2, respectively); to provide for the characterization of other waste streams generated during the project; and to ensure compliance with Department of Transportation regulations. It is anticipated that the project will rely solely on gamma spectroscopy for radiological isotopic analyses.

The following samples will be analyzed using gamma spectroscopy prior to shipment to an offsite laboratory for the analysis of volatile organics and other contaminants of concern.

- waste (depleted uranium) destined for offsite treatment,
- debris, sludge, cemented cyanide, and still bottoms,
- stockpiled soil, and
- soil stored in BR-124 metal crates.

Samples will be collected to characterize the waste destined for shipment to an offsite treatment facility. The waste will be comprised of depleted uranium turnings and chips, drum carcasses, soil, and small particles of debris. The waste will be packaged, sampled, and rendered inert prior to shipment. Gamma spectroscopy results will be used to ensure compliance with the treatment subcontractor's radioactive material license.

Other waste streams (e.g. debris, sludge, cemented cyanide, still bottoms) generated during excavation will be characterized to evaluate treatment and/or disposal options.

Stockpiled soil determined to initially meet Subsurface Soil Action Levels for radionuclides, based on FIDLER readings, will be sampled to determine the level of volatile organics. It is anticipated that all stockpiled soil will returned to the excavation.

Radiologically contaminated soil which will not be shipped for treatment, will be sampled and packaged in BR-124 metal crates. Per the Proposed Action Memorandum for Source Removal at the Trench 1 Site, soil below Tier II levels will be returned to the excavation. Soil between Tier II and Tier I, may be placed within a retrievable liner and returned to the excavation or packaged and shipped for offsite disposal. Soil above Tier I levels will be packaged for offsite disposal.

The project will require a trained and approved technician, provided by Radiological Controls or Radiological Engineering, to operate a gamma spectroscopy system during trench excavation. Excavation is currently scheduled to begin on March 1, 1998 with completion date of June 1, 1998. An office will be provided in T900G, located at the Trench 1 Site, for conducting gamma spectroscopy analyses. All sampling and analysis will be performed in accordance with the project Sampling and Analysis Plan, which is currently being developed. Weekly project planning meetings are being held to address issues regarding posting requirements, radiological controls, PPE requirements, equipment selection, and site layout.

The second item that needs to be addressed is related to the use of the FIDLER for the field screening and segregation of soil. The approved PAM states that "If levels of radionuclides are encountered in the soil greater that three times background, the soils will be segregated and further sampling and evaluation will be performed to compare radioisotopic concentrations with RFCA subsurface soil action levels." Based on background readings from the Mound Site Source Removal Project, this level is approximately 5000 counts per minute (cpm) on a FIDLER. Soil with FIDLER readings below 5000 cpm will be placed in the soil stockpile. It should be noted that soil below 5000 cpm (three times background) will not require further radiological characterization.

In an effort to minimize the volume of waste shipped for offsite disposal, I am requesting the establishment of a FIDLER reading that can be used for the gross segregation of soil between Tier I and Tier II levels. Soil between Tier I and Tier II will either be placed in BR-124 metal crates or placed in a separate soil stockpile. All soils exhibiting levels above the new FIDLER reading will be placed in BR-124 metal crates. Samples will be collected from all soil above 5000 cpm and analyzed to determine final disposition. Gamma spectroscopy will be used for radiological isotopic analysis.

Please provide a status of the gamma spectroscopy program modifications, sample preparation requirements for gamma spectroscopy, the timeframe required to train a technician to support the Trench 1 Project, the name of the assigned technician that will perform gamma spectroscopy analyses, the gamma spectroscopy MDA that will meet the project's requirements, and a FIDLER reading that can be used for the segregation of Tier II and Tier I soil. A response is requested by November 26, 1997, to allow for the completion of the Sampling and Analysis Plan.

If you have any questions please give me a call. Thank you for your continued support of the Trench 1 Source Removal Project.

Attachment As
Stated (2)

WRS:la

cc:

J. L. Anderson	A. L. Primrose
J. Barroso	J. Miller
M. C. Burmeister	H. Salomon
R. Gentry	ER Records Center (2)

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
RADIOACTIVE MATERIAL LICENSE

Pursuant to the Atomic Energy and Radiation Control Act, Section 13-7-40 et.seq. of S.C. Code of Laws of 1976, as amended, and Supplements thereto, and the South Carolina Department of Health and Environmental Control Regulation 61-63, Radioactive Material (Title A), and in reliance on statements and representations heretofore made by the applicant, a license is hereby issued authorizing the licensee to receive, acquire, possess and transfer radioactive material listed below; and to use such radioactive material for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules and regulations of the South Carolina Department of Health and Environmental Control now or hereafter in effect and to any conditions specified below.

Amendment No. 15 amends

LICENSEE		3. License Number:
1. Name: General Engineering Laboratories		362 in its entirety.
2. Address: 2040 Savage Road Charleston, SC		4. Expiration Date: June 30, 1999

5. Radioactive Material (Element & Mass No.)	(Chemical and/or Physical Form)	Maximum Radioactivity and/or quantity of Material which Licensee may possess at any one time.
A. Any radioactive material with Atomic Numbers 2 through 81.	A. Any	A. 100 millicuries.
B. Any radioactive material with Atomic Numbers 84 through 98.	B. Any	B. 10 millicuries.
C. Any radioactive material with Atomic Numbers 99 through 100.	C. Any	C. 10 millicuries.
D. Uranium 235	D. Any	D. 30 grams.
E. Uranium 233	E. Any	E. 2 grams.
F. Plutonium	F. Any	F. 2 grams.
G. Hydrogen 3	G. Any	G. 1.0 curie.
H. Any radioactive material with Atomic Numbers 1 through 98.	H. Any	H. No single source to exceed 2.0 millicuries.
I. Cobalt 57	I. Sealed source (NEN Model NER-472)	I. No single source to exceed 10 millicuries.
J. Nickel 63	J. Foils (U.S. Radium Lab 784 or NEN Model NER-004).	J. No single source to exceed 20 millicuries.

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K. Nickel 63	K. Foils (Amersham Corp. Models NBCD)	K. No single source to exceed 15 millicuries.

8. Authorized Use:

A. through G. As contaminants in environmental waste samples of unknown chemical composition.

H. To be used as calibration [illegible] standards.

I. To be used in Princeton [illegible] Model [illegible] portable x-ray fluorescence [illegible] for measurement of [illegible] content.

J. To be used [illegible] 3500 [illegible] for use in Tracor Model 540 and 560 gas chromatographs.

K. To be used [illegible] Model 63222A detector [illegible] for use in Hewlett Packard [illegible] gas chromatograph.

Conditions

9. Radioactive material [illegible] at the address listed in Item 2 above and [illegible] the State of South Carolina, subject to the jurisdiction [illegible] of Health and Environmental Control. This condition does not [illegible] the U.S. Nuclear Regulatory Commission jurisdiction [illegible] which may be established by these states [illegible] the U.S. Nuclear Regulatory Commission.

10. The licensee shall [illegible] provisions of Title 13, Code of South Carolina Rules and Regulations, [illegible] Part I - General Provisions; Part III - Standards for Protection Against Radiation; and Part VI - Notices, Instructions, and Reports to Workers; Inspections.

11. Radioactive material shall be used by, or under the supervision of: James Westmoreland (RSO), George [illegible]

12. Radioactive material listed in Items 5.I., 6.I, and 7.I. shall be used by, or under the supervision of, and in the physical presence of: Mark Welsh, Eddie Buxton, Michael Marcos, Jack Fanning, Douglas Weeks, Thomas Seabrook, Jennifer Matts, Nina Marshtein, Anthony Perillo, James Hubert or Janet Phillips.

13. Sealed sources containing radioactive material shall not be opened or removed from their respective source holders by the licensee.

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14. A. Each sealed source containing radioactive material, other than Hydrogen-3, with a half-life greater than thirty (30) days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed three (3) years, except for 5.I and 5.K which shall be tested at intervals not to exceed six (6) months. In the absence of a certificate from a transferor indicating that a test has been made within six (6) months prior to the transfer, the sealed source shall not be put into use until tested.

B. The test shall be capable of detecting the presence of 0.005 microcuries of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted or stored on which one would expect contamination to accumulate. Records of leak tests shall be kept in units of microcuries and maintained for inspection by the Department.

C. If the test reveals the presence of 0.005 microcuries or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Department regulations. A report shall be filed within five (5) days of the test with the Bureau of Radiological Health, South Carolina Department of Health, Environmental Control, 2600 Bull Street, Columbia, South Carolina 29201, describing the equipment involved, the test results, and the corrective action taken.

15. Except for plutonium sources, a radioactive source designed for individual human application, [illegible] shall be delivered to a carrier for shipment by air [illegible] by the licensee except in packages that [illegible] Nuclear Regulatory Commission has specifically approved for transport of plutonium by air.

16. The licensee shall perform surveys of all incoming samples. Records of these surveys shall be maintained for review by the Department.

17. The licensee shall maintain a current, accurate log of all samples received. This log shall be maintained for review by the Department.

18. The licensee shall conduct a physical inventory every six (6) months to account for all radioactive material received and possessed under the license. The records of the inventories shall be maintained for inspection by the Department and shall include the quantities and kinds of licensed material, location of radioactive material, and the date of the inventory.

19. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in RHA 3.21.1 of Part III, the licensee is hereby authorized to label detector cells and cell baths, containing radioactive material and used in gas chromatograph devices, with conspicuously etched or stamped radiation caution symbols without a color requirement.

20. Tests for leakage and/or contamination shall be performed by persons specifically authorized by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such service.

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21. The licensee shall dispose of all radioactive samples and wastes by return to the sample generator or by transfer to persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to receive and dispose of these radioactive samples and waste.

22. The licensee shall maintain itemized disposal records for review by the Department.

23. The licensee shall transport and dispose of low-level radioactive waste in accordance with Department Regulation 61-63 and applicable disposal site requirements. Any mixed low-level radioactive waste containing radioactivity and, either: 1) listed hazardous waste as defined by 40 CFR 261, or, 2) waste that exhibits any of the hazardous waste characteristics identified in Subpart C, 40 CFR 261, shall be returned to the sample generator or acceptably treated and transported in accordance with applicable regulatory requirements to a licensed treatment or mixed waste facility for recycling, treatment and/or disposal.

24. Radioactive material listed in Items 6.I., 6.K. and 7.I. shall be transported in accordance with [illegible] 23 - Transportation of Radioactive Materials, Department Regulation [illegible].

25. The licensee shall maintain a utilization log indicating the disposition, name of person, and place where radioactive material listed in Items [illegible] 6.I., and 7.I. is used.

26. Except as specifically noted otherwise, the licensee shall possess and use radioactive material described in Items 5, [illegible] and 7 of this license in accordance with statements, representations and procedures contained in the following documents.

A. Renewal application dated March 22, 1997, signed by James Westmoreland.

B. Additional information letter dated March 24, 1997, signed by James Westmoreland.

Date of Issuance February 6, 1997

DHEC 812 (11/81)

DHEC/BRH/010697

DHEC 812 (11/81)

For the South Carolina Department
of Health and Environmental Control

By: M. K. Batavia

M. K. Batavia, P.E., Chief
Bureau of Radiological Health

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
RADIOACTIVE MATERIAL LICENSE

Pursuant to the Atomic Energy and Radiation Control Act, Section 13-7-40 et.seq. of S.C. Code of Laws of 1976, As Amended, and Supplements thereto, and the South Carolina Department of Health and Environmental Control Regulation 61-63, Radioactive Material (Title A), and in reliance on statements and representations heretofore made by the applicant, a license is hereby issued authorizing the licensee to receive, acquire, possess and transfer radioactive material listed below; and to use such radioactive material for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules and regulations of the South Carolina Department of Health and Environmental Control now or hereafter in effect and to any conditions specified below.

Amendment No. 03 amends

Licensee		3. License Number:
1. Name: Environmental Physics, Inc.		492 in its entirety.
2. Address: 2040 Savage Road Charleston, SC [illegible]		4. Expiration Date: December 31, 1997
5. Radioactive Material (Element & Mass No.)	Chemical and/or Physical Form	Maximum Radioactivity and/or quantity of material which licensee may possess at any one time.
A. Any radioactive material with Atomic Numbers 3 through 83.	A. Any	A. 100 millicuries.
B. Any radioactive material with Atomic Numbers 84 through 98.	B. Any	B. 10 millicuries.
C. Any radioactive material with Atomic Numbers 99 through 103.	C. Any	C. 10 millicuries.
D. Uranium 235	D. Any	D. 50 grams.
E. Uranium 233	E. Any	E. 2 grams.
F. Plutonium	F. Any	F. 2 grams.
G. Hydrogen 3	G. Any	G. 1.0 Curie.
H. Any radioactive material with Atomic Numbers 1 through 83.	H. Any	H. No single source to exceed 2.0 millicuries.
I. Technetium 99m	I. Any	I. No single source to exceed 5.0 millicuries.

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License No. 492
Amendment No. 01

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8. Authorized Use:

A. through G. As contaminants in environmental waste samples of unknown chemical composition.

H. and I. To be used as calibration and reference standards.

Conditions

9. Radioactive material may only be used at the licensee's address listed in Item 2 above and temporary jobsites of the licensee anywhere in South Carolina, subject to the jurisdiction of the S.C. Department of Health and Environmental Control. This condition does not prohibit use in Agreement States or in U.S. Nuclear Regulatory Commission jurisdiction states under reciprocity procedures which may be established by those states or the U.S. Nuclear Regulatory Commission.

10. The licensee shall comply with the provisions of Title A, State of South Carolina Rules and Regulations for Radiation Control, Part I - General Provisions; Part III - Standards for Protection Against Radiation; and Part X - Notices, Instructions, and Reports to Workers; Inspections.

11. Radioactive material shall be used by, or under the supervision of: Heyward H. Coleman (RSO), [illegible], Russell [illegible] or Bill Sigmon.

12. Except for plutonium contained in a medical device designed for individual human application, no plutonium, regardless of form, shall be delivered to a carrier for shipment by air transport or transported in aircraft by the licensee except in packages the design of which the U.S. Nuclear Regulatory Commission has specifically approved for transport of plutonium by air.

13. The licensee shall perform surveys of all incoming samples. Records of these surveys shall be maintained for review by the Department.

14. The licensee shall maintain a current inventory log of all samples received. This log shall be maintained for review by the Department.

15. The licensee shall conduct a physical inventory every six (6) months to account for all radioactive material received and possessed under the license. The records of the inventories shall be maintained for inspection by the Department and shall include the quantities and kinds of licensed material, location of radioactive material, and the date of the inventory.

16. The licensee shall dispose of all radioactive samples and wastes by return to the sample generator or by transfer to persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to receive and dispose of these radioactive samples and waste.

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License No. 424
Amendment No. 23

17. The licensee shall maintain itemized disposal records for review by the Department.

18. Routine bioassay shall be performed by persons specifically authorized by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such service when quantities of Hydrogen 3 processed by an individual at any one time, or the total amount processed per month, exceed 100 millicuries.

19. The licensee shall transport and dispose of low-level radioactive waste in accordance with Department Regulation 61-63 and applicable disposal site requirements. Any mixed low-level radioactive waste defined as waste that contains radioactivity and , either 1) listed hazardous waste pursuant to 40 CFR 261, Subpart D, 2) waste that exhibits any of the hazardous waste characteristics identified in Subpart C, 40 CFR 261, shall be returned to the supplier, processor or manufacturer and transported in accordance with applicable regulatory requirements to a licensed radioactive mixed waste facility for recycling, treatment and disposal.

20. Except as specifically provided otherwise, the licensee shall possess and use radioactive material described in Items 3, 4, and 7 of this license in accordance with statements, representations and procedures contained in the following documents.

A. Application dated November 5, 1992, signed by Howard M. Silliman.

Date of Issuance February 7, 1997

DHEC 812 (11/81)

DHEC/BRH/010'97

For the South Carolina Department
of Health and Environmental Control

By: M. K. Batavia
M. K. Batavia, P.E., Chief
Bureau of Radiological Health

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
RADIOACTIVE MATERIAL LICENSE

Pursuant to the Atomic Energy and Radiation Control Act, Section 13-7-40 et.seq. of S.C. Code of Laws of 1976, as amended, and Supplements thereto, and the South Carolina Department of Health and Environmental Control Regulation 61-63, Radioactive Material (Title A), and in reliance on statements and representations heretofore made by the applicant, a license is hereby issued authorizing the licensee to receive, acquire, possess and transfer radioactive material listed below; and to use such radioactive material for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules and regulations of the South Carolina Department of Health and Environmental Control now or hereafter in effect and to any conditions specified below.

Amendment No. 18 Amends

LICENSEE	3. License Number:
1. Name: Carolina Metals, Inc.	322 in its entirety.
2. Address: P.O. Box 1366, Hwy. 80 Barnwell, SC 29812	4. Expiration Date: December 31, 2001

5. Radioactive Material (Element & Mass No.)	6. Chemical and/or Physical Form	7. Maximum Radioactivity and/or quantity of material which licensee may possess at any one time
Uranium (Natural)	A. Any form, including hexafluoride (UF_6), tetrafluoride (UF_4), metal and oxide(s)	A. 50 metric tons, total all forms
B. Uranium (Depleted)	B. Any form, including: hexafluoride (UF_6), tetrafluoride (UF_4), metal, counterweights and oxide(s)	B. 7550 metric tons, total all forms
C. Strontium-90	C. Calibration & reference sources (Eberline SN-1, and SN-2 or equivalent	C. 5 millicuries maximum per source
D. Plutonium-239	D. Calibration & reference sources (Eberline DNS-1, DNS-16 and DNS-21 or equivalent)	D. 5 millicuries total
E. Americium-241	E. Analytical Samples	E. 12 nanocuries
F. Curium-242	F. Analytical Samples	F. 12 nanocuries
G. Curium-244	G. Analytical Samples	G. 12 nanocuries
H. Polonium-210	H. Analytical Samples	H. 24 nanocuries
I. Plutonium-239	I. Analytical Samples	I. 12 nanocuries
J. Radionuclides with Atomic Nos. 2-92	J. Trace material	J. 5 curies
K. Radionuclides with Atomic Nos. 93-103	K. Trace material	K. 100 grams

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L. Special Nuclear Material (SNM)	L. Any Form	L. 350 grams total of ^{235}U or 200 grams of ^{233}U or 200 grams of plutonium or any combination of these provided the sum of the ratios of the quantities does not exceed unity. The activities for Item 5D and I shall be included in the calculation of the sum of ratios.
M. Radionuclides with Atomic Nos. 2-92 Material	M. Solid	M. 100 curies total
N. Radionuclides with Atomic Nos. 93-103	N. Solid	N. 100 grams total

9. Authorized Use:

.. & B. (1) For the conversion of uranium hexafluoride (UF_6) to uranium tetrafluoride (UF_4) and the manufacture of metallic products in such forms as derbies for the purpose of sale or developmental activities.

(2) To be used in research and developmental activities to be conducted at the bench scale or pilot scale level.

B. To receive, refurbish, manufacture, electroplate and distribute depleted uranium counterweights.

D & E. To be used as calibration reference sources.

E,F,G,H,&I. To be used as standard reference material by the analytical laboratory and health and safety department.

J,K & L. To receive, possess, process and transfer as trace constituents in materials received for processing activities authorized under the license.

M. For receipt in the form of surface contamination on scrap metals for storage, sectioning and melting into slabs/ingots.

N. For receipt in the form of surface contamination on rolled metal sheets, ingots and shielded blocks.

Conditions

9. Radioactive material may only be used at the licensee's site stated in Item 2 above.

10. The licensee shall comply with the provisions of Title A, State of South Carolina Rules and Regulations for Radiation Control; Part I - General Provisions; Part III - Standards for Protection Against Radiation; and Part VI - Notices, Instructions, and Reports to Workers; Inspections.

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11. Radioactive material shall be used by, or under the supervision of Douglas F. Grotheer (President), Eric E. Bickel (RSO), C. David Wilson, Douglas A. Krogh, and James C. Cornwell. Other authorized users may be designated by the Radiation Safety Committee who have successfully completed the licensee's radiation safety training program, and have received approval from the Department. The licensee shall maintain training and qualification records at the location specified in Condition No. 9 for all individuals authorized to enter areas restricted due to the presence of radiation or radioactive materials.

12. For the purpose of licensing, the UF_6 to UF_4 conversion facility is hereby inactive/non-operational as of August 7, 1995. Prior to reactivating this process, the licensee must notify the Department in writing and have this License Condition No. 12 amended. Prior to operation of the UF_6 to UF_4 conversion facility, final Health, Safety and Operational procedures for this process shall be submitted to the Department for approval.

13. Operations authorized by this license shall be conducted in accordance with the licensee's procedures and subsequent revisions and additions approved by the Department. However, the licensee may, upon notification to the Department, but without Department approval, make minor changes to these procedures provided that:

    a. The change does not affect requirements of any other license conditions in this license;

    b. The change does not increase the potential for personnel exposures;

    c. The change does not diminish operational safety;

    d. The change does not increase the potential for release of radioactive material to unrestricted areas; and

    e. The change does not reduce the licensees record keeping and reporting system.

    The licensee shall maintain a record of these changes including evaluations which provide the basis of the change.

    The licensee's Radiation Safety Committee shall review and approve all operational health and safety procedures.

14. The licensee is authorized to operate an in-house laundry for the purpose of cleaning and decontaminating the licensee's garments in accordance with procedures contained in letters submitted to the Department on January 24, 1984; February 16, 1984 and April 18, 1984.

15. Radioactive material shall be packaged and transported in accordance with the requirements of RHA 2.22 - Transportation of Radioactive Materials, Department Regulation 61-63, Radioactive Material (Title A).

16. Except for plutonium contained in a medical device designed for individual human application, no plutonium, regardless of form, shall be delivered to a carrier for shipment by air transport or transported in an aircraft by the licensee except in packages, the design of which the U.S. Nuclear Regulatory Commission has specifically approved for transport of plutonium by air.

17. The licensee shall transport and dispose of low level radioactive waste in accordance with Department Regulation 61-83 and applicable disposal site requirements. Unused feedstock material and radioactive wastes including secondary waste streams generated as a result of activities performed for each project authorized under Item Nos. 8. A(2) and B(2) and 8. M & N, shall be returned to the owner of the sample materials unless otherwise authorized by the Department.

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18. Any mixed low-level radioactive waste defined as waste that contains radioactivity and either (1) listed hazardous waste in Subpart D, 40CFR 261, or, (2) waste that exhibits any of the hazardous waste characteristics identified in Subpart C, 40CFR 261, generated as a result of the activities authorized under Item Nos. 8. A(2) and B(2) and 8. M and N and/or encountered during the shipment of radioactive material shall be transported back to the owner of the sample materials in accordance with applicable regulatory requirements unless otherwise authorized by the Department.

19. Prior to the receipt and use of radioactive materials for each project authorized under Item Nos. 8. A(2) and B(2) and 8. M and N, the licensee shall submit to the Department a certification from the owner of the materials that the products and wastes resulting from the activities authorized under the license will be allowed to be shipped back to the owner's facility or arrangements have been made regarding the handling of the products. The licensee shall not store the manufactured products, generated wastes and unused materials for processing from all activities for more than six (6) months after the receipt of each shipment.

20. The licensee shall notify in writing the Director, Division of Radioactive Waste Management, Bureau of Land & Waste Management, Department of Health and Environmental Control, prior to receiving the materials and engaging in a new project authorized under Item Nos. 8. A(2) and B(2) and 8. M and N, for review and approval. The notification shall include the activity, type and volume of materials involved in the project, duration and estimated completion date of each project and description of equipment to be used.

A monthly processing report of the activities authorized under Item Nos. 8. A(2) and B(2) and 8. M and N, shall be submitted to the Department. The report shall include date, volume and activity of the shipments received; date, volume and activity of products and waste shipped; and manner of waste disposition and management of generated products.

22. The licensee shall conduct a physical inventory every six (6) months to account for all radioactive material received and possessed under the license. The records of the inventories shall be for inspection by the Department, and shall include the quantities and kinds of licensed material, location of radioactive material, and the date of the inventory.

23. A monthly waste inventory report shall be submitted to the Department by the 15th day of the following month.

24. An annual environmental monitoring report for the previous year shall be submitted to the Department on or before March 15 of the current year. The effluents concentration shall be reported in units consistent with the regulations.

25. The licensee, shall, to the extent necessary, continue the employment of all personnel involved in the operation of the facility in accordance with all the requirements of the license and applicable regulations and, in the event replacement of employees become necessary, only individuals of comparable qualifications and experience will be hired.

26. Prior to receipt and use of radioactive for each new project authorized under Item Nos. 8. A(2) and B(2) and 8. M and N, the licensee shall establish a financial mechanism satisfactory to the Department in the form and amount for the purpose of disposing and decontaminating of all equipment, facilities and property which may be contaminated with radioactive materials during operations at the facility for that project.

27. The licensee shall submit to the Department an updated Decontamination and Decommissioning Plan (D & D) which outlines the manner of decommissioning the facilities equipment and activities authorized under the license every five (5) years for review and approval. The D & D plan shall be updated to include any changes to the facility

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including construction of new buildings, addition of equipment, relocation of equipment and processes, etc. The licensee shall submit a final version of the D & D plan one (1) year in advance of an anticipated license termination.

28. Except as specifically provided otherwise, the licensee shall possess and use radioactive material described in Items 5, 6, and 7 of this license in accordance with statements, representations, and procedures contained in:

a. application dated July 31, 1981, signed by J. L. Jenkins.

b. letters dated September 20, 27 and 31, 1981, signed by R. L. Toole.

c. letter dated November 17, 1981, amendment request with "Report on the Proposed New Facility for Conversion of UF_6 and UF_4", and revisions thereto, dated September 4, 1984 signed by Vincent G. Minutolo.

d. letters dated January 24, 1985 and June 6, 1986 signed by Vincent G. Minutolo.

e. renewal application with attachments dated October 27, 1986 and letter with attachment dated December 15, 1986 signed by R. L. Toole.

f. letters dated October 14, 1987 and January 19, 1988, signed by R. L. Toole.

g. renewal applications with attachments dated December 4, 1991 and letter dated February 11, 1992 signed by R. L. Toole.

h. application dated October 14, 1994 and letter with attachment dated July 7, 1995 signed by R. L. Toole.

i. letters with attachments dated March 26, 1996, May 2, 1996, May 14, 1996 and June 12, 1996 signed by C. David Wilson.

j. application for renewal dated November 27, 1996 and submittal dated April 16, 1997 signed by Sherman D. Brady.

k. application dated February 27, 1997 and submittal dated April 16, 1997 signed by Sherman D. Brady.

For the South Carolina Department
of Health and Environmental Control

Date of Issuance September 16, 1997

By: _____
Virgil R. Autry, Director, Div. of
Radioactive Waste Management

DHEC 812 (11/81)

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